

WHAT IS CLAIMED IS

1. A process for the preparation of a particle
composed of a coprecipitate applied as a layer
5 around a neutral hydrophilic carrier by spraying
an organic solution over said neutral hydrophilic
carrier, said solution comprising at least one
active substance, one surface-active agent and one
hydrophilic polymer, characterized in that the
10 spraying of the whole of the solution is carried
out in at least two separate stages, each of these
stages being followed systematically by a stage of
milling the product obtained on conclusion of the
preceding stage.
- 15 2. The process for the preparation of the particles
as claimed in claim 1, characterized in that it
comprises the following stages:
 - a) preparing an organic solution comprising the
20 active substance, the hydrophilic polymer and
the surface-active agent,
 - b) spraying a portion of the solution obtained in
a) over the neutral hydrophilic carriers,
 - c) milling the particles obtained in stage b),
 - 25 d) spraying the remaining amount of the organic
solution over the neutral hydrophilic carriers,
and
 - e) final milling of the particles obtained in
stage d)..
- 30 3. The process for the preparation of the particles
as claimed in either one of claims 1 and 2,
characterized in that the spraying/milling
sequence (stages b to d) is repeated one or more
35 times.

4. The process for the preparation of the particles as claimed in any one of claims 1 to 3, characterized in that it additionally comprises a drying stage either after each spraying stage,
5 before milling, or immediately after the milling.
5. The process for the preparation of the particles as claimed in any one of claims 1 to 4, characterized in that the inert hydrophilic
10 carrier is composed of any chemically and pharmaceutically inert excipient existing in the crystalline or amorphous particulate form and preferably chosen from the group consisting of sugar derivatives, celluloses and their mixtures.
- 15 6. The process for the preparation of the particles as claimed in any one of claims 1 to 5, characterized in that the hydrophilic polymer is chosen from the group consisting of
20 polyvinylpyrrolidones, in particular polymers with a molecular weight of between 10 000 and 50 000, cellulose derivatives, preferably hydroxypropylmethylcellulose, hydroxypropyl-cellulose, hydroxymethylcellulose, hydroxypropyl-methylcellulose
25 phthalate or hydroxypropylmethylcellulose acetate/succinate, acrylic polymers and polyethylene glycols.
- 30 7. The process for the preparation of the particles as claimed in any one of claims 1 to 6, characterized in that the surface-active agent is chosen from the group consisting of cationic, anionic, nonionic and amphoteric agents, alone or as a mixture.
- 35 8. The process for the preparation of the particles as claimed in any one of claims 1 to 7, characterized in that the organic solvent is

chosen from the group consisting of ethanol, isopropanol, tetrahydrofuran, isopropyl ether, acetone, methyl ethyl ketone, methylene chloride and the mixtures of these solvents.

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9. The process for the preparation of the particles as claimed in any one of claims 1 to 8, characterized in that the spraying stages are carried out in a coating pan, in a perforated pan coater or in a fluidized bed.
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10. A particle composed of a coprecipitate which is applied as a layer around a carrier and which comprises at least one active substance, one surface-active agent and one hydrophilic polymer, characterized in that it is capable of being obtained by spraying a solution comprising at least one active substance, one surface-active agent and one hydrophilic polymer, said spraying being carried out at least in two separate stages, said stages each being followed by a milling stage.
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11. The particle as claimed in claim 10, characterized in that the active substance is present in the particle in a proportion which can vary between 1 and 60% by weight.
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12. The particle as claimed in either one of claims 10 and 11, characterized in that the inert hydrophilic carrier is present in a proportion which can range up to 95% by weight.
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13. The particle as claimed in any one of claims 10 to 12, characterized in that the hydrophilic polymer/active principle ratio by weight is between 10/1 and 1/2.
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14. The particle as claimed in any one of claims 10 to 13, characterized in that the surface-active agent is present in a proportion which can vary between 0.1 and 20% by weight, with respect to the total weight obtained.
15. The particle as claimed in any one of claims 10 to 14, characterized in that the unit particle size of the inert hydrophilic carrier can be between 50 and 500 μm , preferably between 90 and 200 μm .
16. A pharmaceutical form, characterized in that it comprises at least one particle as claimed in any one of claims 10 to 15, optionally in combination with pharmaceutically acceptable excipients.